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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/615,565	07/08/2003	Stephen B. Witte	10990488-2	9012

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EXAMINER	
LEE, CHEUKFAN	

ART UNIT	PAPER NUMBER
2627	

DATE MAILED: 12/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/615,565	WITTE ET AL.	
	Examiner	Art Unit	
	Cheukfan Lee	2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 July 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *12-22* is/are allowed.

6)☒ Claim(s) *1-11* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *08 July 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

1. Claims 1-22 are pending. Claims 1, 12, and 16 are independent.

2. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

3. Claims 3, 4, and 8-11 are rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1, 6, and 8-10 of prior U.S. Patent No. 6,650,445. This is a double patenting rejection.

Claim 3 is identical to patent claim 1. Claim 3 is understood to include all limitations of claim 1 on which it depends.

Claim 4 is identical to patent claim 6. Claim 6 is understood to include all limitations of claim 1 upon which it depends.

Claim 8 is identical to patent claim 7. Claim 7 is understood to include all limitations of claim 1 upon which it depends.

Claims 9 to11 are identical to patent claims 8-10, respectively. Claims 9 to 11 are understood to include all limitations of claims 8 and 1 upon which they depend.

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., In re Berg, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); In re Goodman, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); In re Longi, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); In re Van Ornum, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); In re Vogel, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and In re Thorington, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. Claims 1, 2, and 5-7 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-5 of U.S. Patent No. 6,650,445. Although the conflicting claims are not identical, they are not patentably distinct from each other because of the reason(s) given below.

Claim 1 is fully anticipated by patent claim 1. Claim 1 recites all limitations of patent claim 1, except for the limitation "a scan head body; wherein ... the black region" at the end of patent claim 1. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the claim 1 invention using the patent claim 1 invention.

Claim 2 is fully anticipated by patent claim 2. Claim 2 recites all limitations of patent claim 2, which is understood to include all limitations of patent claim 1 upon which it depends, except for the limitation "a scan head body; wherein ... the black region" at the end of patent claim 1. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the claim 2 invention using the patent claim 2 invention.

Claim 5 is fully anticipated by patent claim 3. Claim 5 recites all limitations of patent 3, which is understood to include all limitations of patent claim 1 upon which it depends, except for the "a scan head body; wherein ... the black region" at the end of patent claim 1. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the claim 5 invention using the patent claim 3 invention.

Claim 6 is fully anticipated by patent claim 4. Claim 6 recites all limitations of patent claim 4, which is understood to include all limitations of patent claim 1 upon which it depends, except for "a scan head body; wherein ... the black region" at the end of patent claim 1. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the claim 6 invention using the patent claim 4 invention.

Claim 7 is fully anticipated by patent claim 5. Claim 7 recites all limitations of patent claim 5, which is understood to include all limitations of patent claim 1 upon which it depends, except for "a scan head body; wherein ... the black region" at the end of patent claim 1. Therefore, it would have been obvious to one of ordinary skill in the

art at the time the invention was made to provide the claim 7 invention using the patent claim 5 invention.

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Note: Prior art Lee et al. (U.S. Patent No. 6,178,015) is applied as a primary reference in art rejections to claims 1, 5, 6, and 7 addressed in sections 7-9.

Prior art Tsai (U.S. Patent No. 5,822,052) is applied as a primary reference in art rejections to claims 1, 2, 6, and 7 addressed in sections 10-11.

7. Claims 1, 5, and 6 are rejected under 35 U.S.C. 102(e) as being anticipated by Lee et al. (U.S. Patent No. 6,178,015).

Regarding claim 1, Lee et al. discloses an optical scanning system comprising a target area (102), a light monitor window (white block 106 of optical ruler 103, referred to as LMW 106 since light from an inherent light source and reflected by white block 106 is used to monitor the light), a black region (black block 105) adjacent to the LMW (106),

and an inherent bulb for illuminating the target area, the LMW (106) and the black region (105), and a photodetector (202) (in the contact type image sensor CIS or used with the CCD, col. 2, lines 55-58) having a field of view (201 in Fig. 2), the target area being within the field of view (203) between margin areas (between 201 and 203 in Fig. 2) of the photodetector (202 in Fig. 2), the LMW (106) and the black region (105) being within the field of view inside a margin area of the photodetector (202).

Regarding claim 5, Lee et al. further discloses a glass pane (optical ruler 103). The LMW (106) includes a first strip (106) on the glass pane (the strip being painted on the glass pane, col. 2, lines 42-45). The black region is provided by a second strip on the glass pane (the black strip being also painted on the glass pane, col. 2, lines 42-45).

Regarding claim 6, the target area (102), the LMW (106) and the black region (105) are focused on the photodetector (202, Fig. 2, col. 2, lines 53-58).

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al. (U.S. Patent No. 6,178,015) in view of Tsai (U.s. Patent No. 5,822,052).

Regarding claim 7, Lee et al. does not disclose the type of inherent light bulb to be cold cathode fluorescent. However, cold cathode fluorescent bulbs are known in the

scanning art as is taught by Tsai (col. 1, lines 17-25). Cold cathode fluorescent bulbs provide light bright enough for use in scanners, though this kind of bulb takes time (4 to 5 minutes) to warm up. It would have been obvious to one of ordinary skill in the art at the time the invention was made to employ a cold cathode fluorescent bulb as the inherent light source of Lee et al., as taught by Tsai, in order to provide light bright enough to illuminate an original.

10. Claims 1, 2, and 6 are rejected under 35 U.S.C. 102(e) as being anticipated by Tsai (U.S. Patent No. 5,822,052).

Regarding claim 1, Tsai discloses an optical scanning system comprising a target area (scanning region 45 in Fig. 4), a light monitor window (LMW) (light transmission region 42 as an luminance detecting means) (col. 4, lines 15-23), a black region (the black region to the left of region 42 in Fig. 4) adjacent to the LMW (42), a bulb (L) for illuminating the target area (45), the LMW (42) and the black region (Fig. 4), and a photodetector (image sensing means 43) having a field of view (Fig. 4), the target area (45) being within the field of view (45) between margin areas of the photodetector (Fig. 4), the LMW (42) and the black region (the black region to the left of 42 in Fig. 4) being within the field of view inside a margin area of the photodetector (43) (where 42 and black region to the left thereof).

Regarding claim 2, the black region (the black region to the left of 42 in Fig. 4) is in between the LMW (42) and the target area (45).

Regarding claim 6, the target area (45 in Fig. 4), the LMW (42) and the black region (the black region to the left of 42) are focused on the photodetector (43), according to Fig. 4.

11. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tsai (U.s. Patent No. 5,822,052).

Regarding claim 7, Tsai employs a light source L but does not state that the light source L is a cold cathode fluorescent bulb in the description of the invention. However, cold cathode fluorescent bulbs are disclosed by Tsai as well known light bulb used in scanners (col. 1, lines 17-25). Although a cold cathode fluorescent bulb takes time (4 to 5 minutes) to warm up, it provides light bright enough for use in an original scanner. It would have been obvious to one of ordinary skill in the art at the time the invention was made to employ a cold cathode fluorescent bulb as the light source in a scanner, provided that the relatively complicated illumination error compensating system of Tsai for compensating an image scanning signal is not critical.

12. Claims 12-22 are allowed.

13. The following is an examiner's statement of reasons for allowance:

Claims 12-15 are allowable over the prior art of record because the prior art does not teach a chip, as claimed in claim 12, for generating a feedback signal indicating intensity of illumination from a bulb of an optical scanner having a light region of known

color and a black region, the chip comprising a processor that uses images of the black region to remove flare from at least one feedback signal, and uses images of the light region to provide at lease one feedback signal indicating color channel intensity, the black and light regions being located on a scan head body positioned within the optical scanner. Claims 13-15 depend on claim 12.

Claim 16 is a method claim corresponding to apparatus claim 12. Claim 16 is allowable for the same reason as given for claim 12.

Claims 17-22 depend on claim 16.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Inoue (U.S. Patent No. 6,954,292), Figs. 5 and 6 (date too late)

Nabeshima et al. (U.S. Patent No. 6,330,083)

Lee (U.S. Patent No. 6,061,147)

Gray et al. (U.S. Patent No. 6,028,681)

Tamagaki (U.S. Patent No. 4,760,609)

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cheukfan Lee whose telephone number is (571) 272-7407. The examiner can normally be reached on 9:30 a.m. to 6:00 p.m., Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward L. Coles can be reached on (571) 272-7402. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Cheukfan Lee
December 6, 2005